

EXISTING TYPICAL SECTION F.A.I. 39

SB STA 290+73.00 TO STA 291+49.77
 SB STA 292+79.55 TO STA 293+34.85
 NB STA 290+98.64 TO STA 291+80.27
 NB STA 293+11.41 TO STA 293+84.29

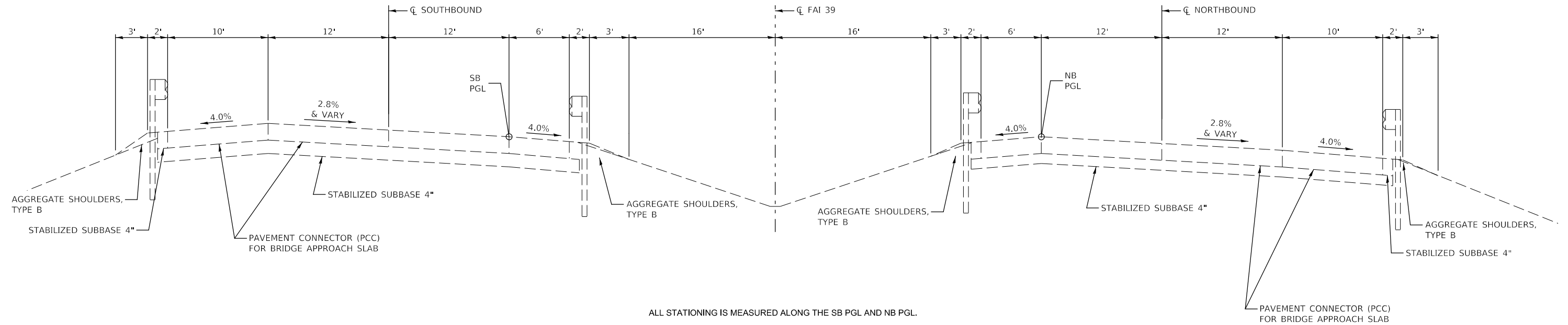
SB STA 303+16.18 TO STA 303+70.11
 SB STA 305+78.83 TO STA 306+42.24
 NB STA 303+84.03 TO STA 303+49.58
 NB STA 305+60.10 TO STA 306+14.58

BRIDGE APPROACH PAVEMENT
 SB STA 291+49.77 TO STA 291+79.49
 SB STA 292+49.58 TO STA 292+79.55
 NB STA 291+80.27 TO STA 292+10.30
 NB STA 292+81.13 TO STA 293+11.41

SN 057-0210
 SB STA 291+79.40 TO STA 292+49.67
 SN 057-0211
 NB STA 292+10.20 TO STA 292+81.22

BRIDGE APPROACH PAVEMENT
 SB STA 303+70.17 TO STA 304+00.18
 SB STA 305+49.10 TO STA 305+78.83
 NB STA 303+49.58 TO STA 303+79.86
 NB STA 305+30.10 TO STA 305+60.10

SN 057-0208
 SB STA 304+00.09 TO STA 305+49.19
 SN 057-0209
 NB STA 303+79.77 TO STA 305+30.10



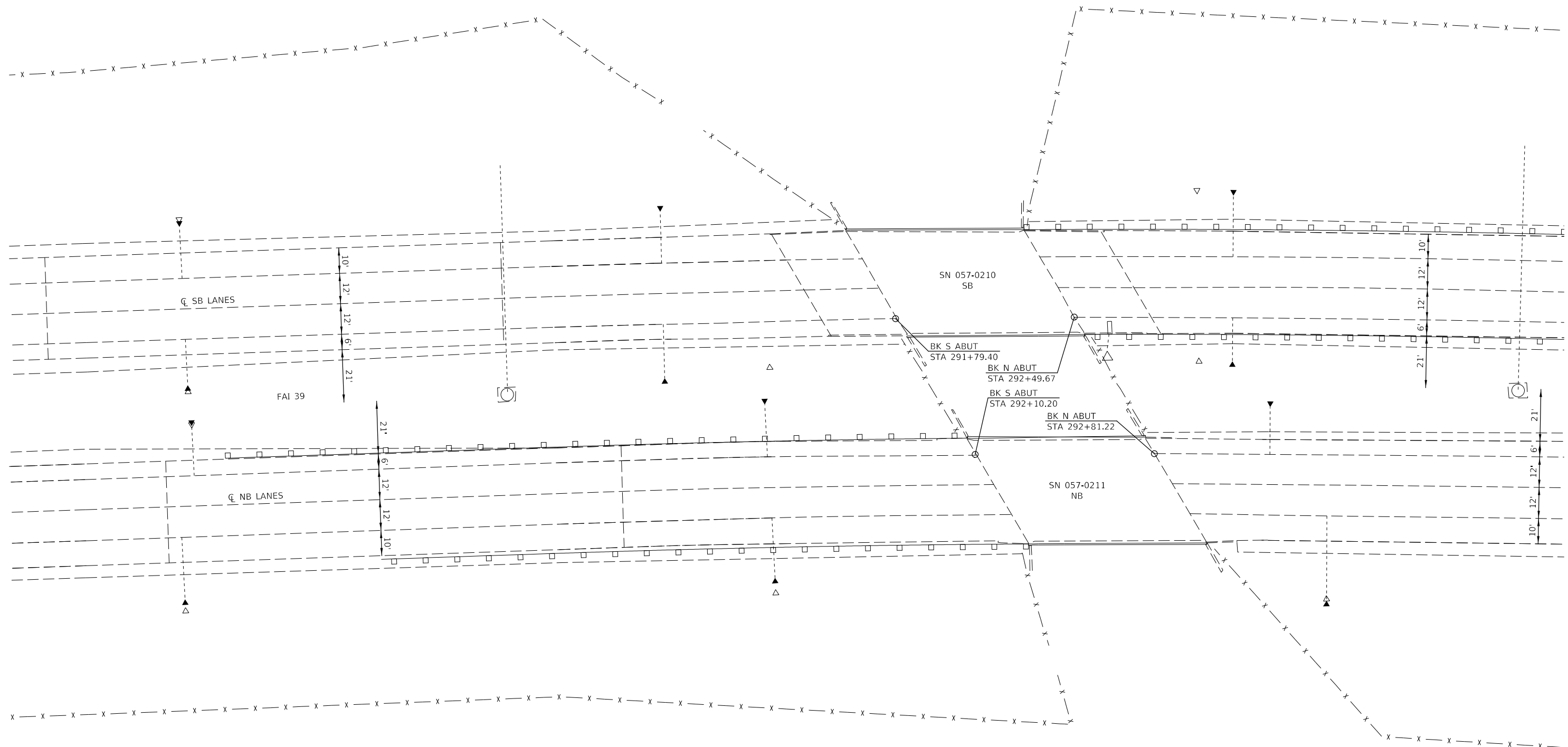
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 PROJECT: \\PROJECT\...

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	DRAWN -	REVISED -
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PLOT DATE = 1/11/2022	DATE - 3/4/2021	REVISED - 1/11/2022

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS	
SCALE:	SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	MBPM 2022-1	MCLEAN	14	4
CONTRACT NO. 70F34				
ILLINOIS FED. AID PROJECT				



SEE BRIDGE REPAIR DETAIL SHEETS FOR LOCATION AND DETAILS OF ABUTMENT PILE REPAIRS

SEE SPECIAL PROVISIONS FOR SUGGESTED CONTRACTOR ACCESS, TRAFFIC CONTROL AND REPAIR OF DISTURBED AREAS

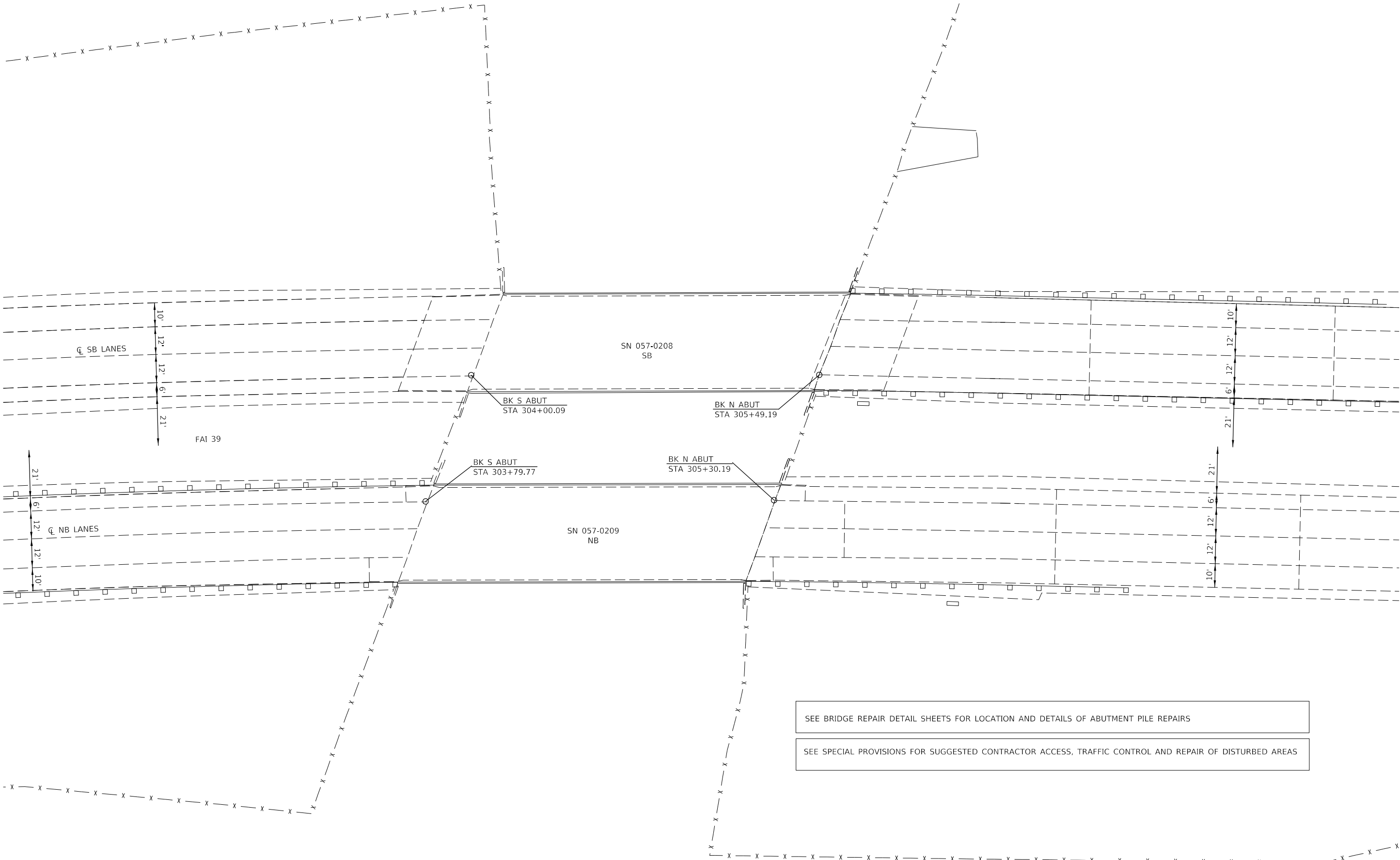
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	DRAWN -	REVISED -
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PLOT DATE = 1/11/2022	DATE - 3/5/2021	REVISED - 1/11/2022

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

FAI 39 PLAN SHEETS				
SN 057-0210(SB) & 0211(NB)				
SCALE:	SHEET	OF	SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	MBPM 2022-1	MCLEAN	14	5
CONTRACT NO. 70F34				
ILLINOIS FED. AID PROJECT				



SEE BRIDGE REPAIR DETAIL SHEETS FOR LOCATION AND DETAILS OF ABUTMENT PILE REPAIRS

SEE SPECIAL PROVISIONS FOR SUGGESTED CONTRACTOR ACCESS, TRAFFIC CONTROL AND REPAIR OF DISTURBED AREAS

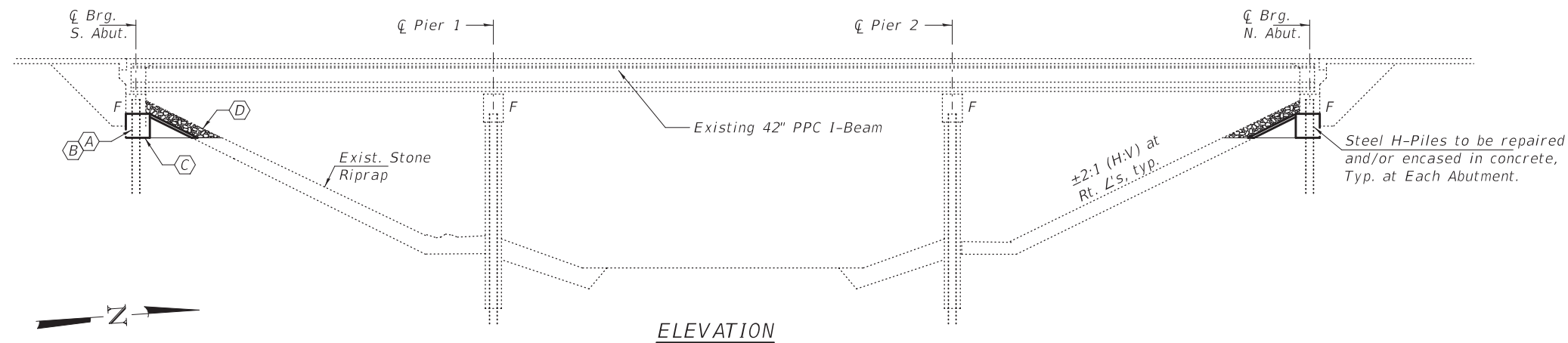
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USER NAME = brandenburgj	DESIGNED - TJB	REVISED - TJB
	DRAWN -	REVISED -
PLOT SCALE = 40,0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/11/2022	DATE - 3/5/2021	REVISED - 1/11/2022

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

FAI 39 PLAN SHEETS			
SN 057-0208(SB) & 0209(NB)			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	MBPM 2022-1	MCLEAN	14	6
CONTRACT NO. 70F34				
ILLINOIS FED. AID PROJECT				



ELEVATION

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
 Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
 The structural steel shapes, plates, and adjusting shims for pile repair's shall conform to the requirements of AASHTO M 270 Grade 50, unless noted otherwise. No field welding is permitted, except as noted.
 High strength fasteners shall be ASTM A325 Type 3. Holes may be subpunched or subdrilled 16" dia. and reamed in the field to 16 dia. for dia. Bolts.
 All-thread rods shall be ASTM F1554, Grade 55.
 The Contractor shall field verify the required bolt length and length of threads necessary to install all bolts in accordance with the Standard Specification.
 Reinforcement bars designated (E) shall be epoxy coated.
 Layout of the slope protection system may be varied to suit specific site conditions in the field as directed by the Engineer.
 Contractor must exercise extreme care during construction operation as not to damage any of the overhead PPC I beams. Any damage done to the beams as a result of the contractor's operations will need to be repaired to the satisfaction of the Engineer at the contractor's expense.
 The quantity and limits shown herein for Stone Riprap, Class A4 (Special) are estimated. Actual quantities shall be determined and adjusted in field by the Engineer.
 Structural Steel Repair quantities are estimates based on initial investigations only. Exact pile locations needing repair will be determined by the Engineer after Structure Excavation and SSPC-SP10 Blast Cleaning by the Contractor. The Engineer shall obtain pile measurements after blast cleaning but before painting. The Contractor shall notify the Engineer in advance of pile blast cleaning to avoid pile inspection delays.

- (A) - Expose and clean all abutment piles as shown.
- (B) - Perform structural steel repairs to indicated abutment piles.
- (C) - Construct all abutment reinforced concrete pile encasements.
- (D) - Backfill excavation with controlled low-strength material and add new riprap slope protection.

LEGEND

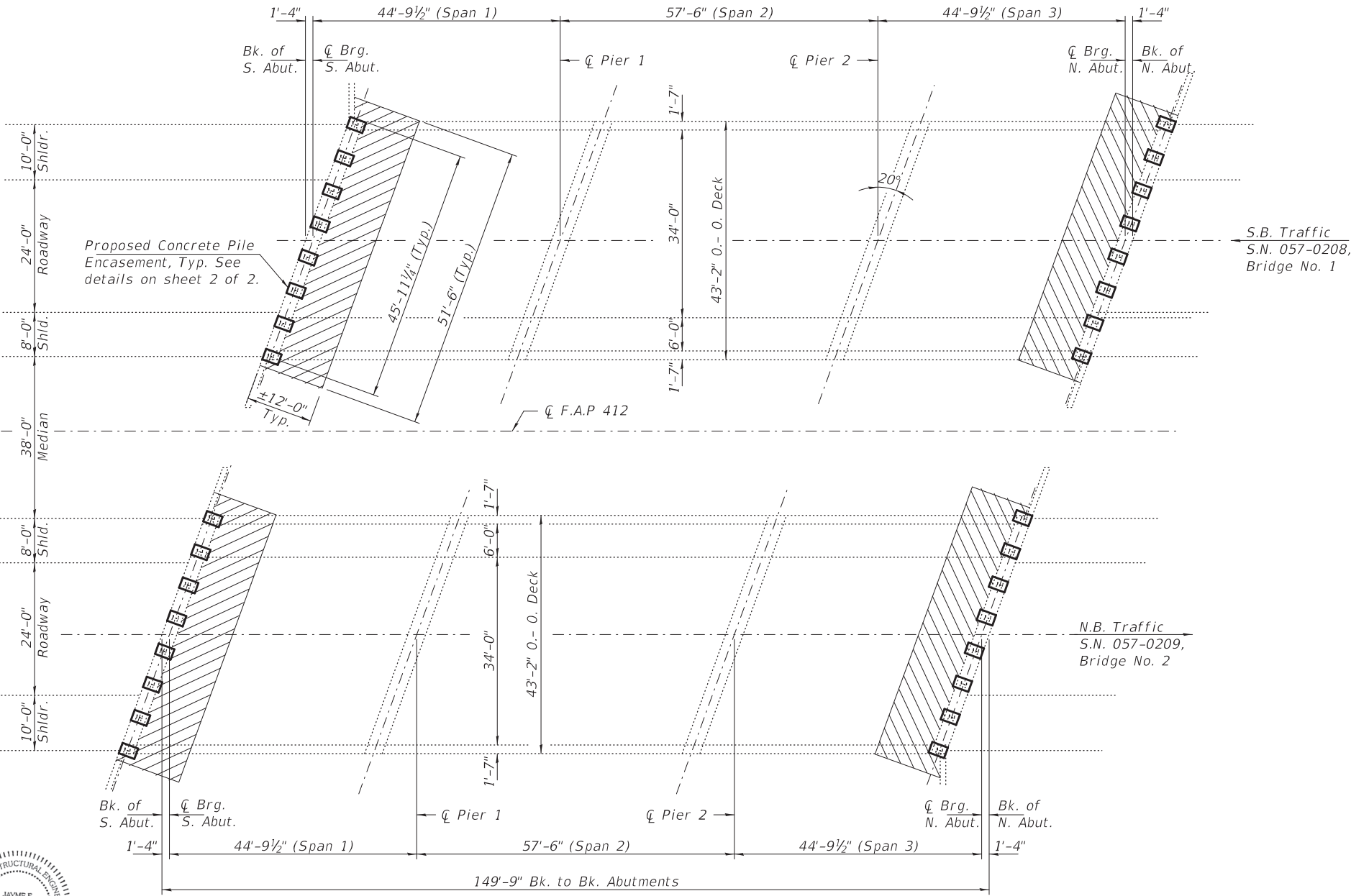
Limits of Structure Excavation. Backfill with controlled low-strength material (CLSM), mix 2. Top with filter fabric, bedding, and stone riprap. See details on sheet 2 of 2.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Stone Riprap, Class A4 (Special)	Ton	170
Structure Excavation	Cu. Yd.	270
Concrete Structures	Cu. Yd.	22
Stud Shear Connectors	Each	256
Reinforcement Bars, Epoxy Coated	Pound	2490
Controlled Low-Strength Material	Cu. Yd.	100
* Structural Steel Repair	Pound	2080
Cleaning and Painting Steel Bridge No. 1	L. Sum	1
Cleaning and Painting Steel Bridge No. 2	L. Sum	1

The quantity and limits shown herein for Stone Riprap, Class A4 (Special) are estimated. Actual quantities shall be determined and adjusted in the field by the Engineer.

* Structural Steel Repair quantity is assumed for 4 piles location on each abutment. Exact pile number and locations to be determined in the field by the Engineer. Locations must also be included in the AS BUILT plans.



PLAN



EXPIRES 11-30-2022

DESIGNED - Chi-Cheung Chau
 CHECKED - Stephen M. Ryan
 DRAWN - Venkat Ramana Reddy
 CHECKED - CCC SMR

EXAMINED - *Ting A. Deak*
 ENGINEER OF STRUCTURAL SERVICES
 PASSED - *Jayme F. Schiff*
 ENGINEER OF BRIDGES AND STRUCTURES

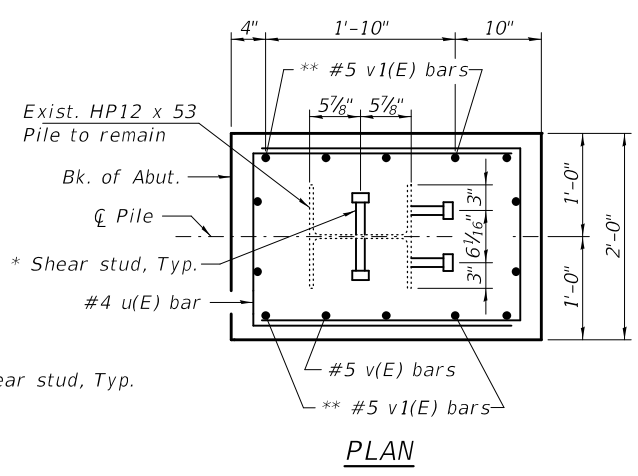
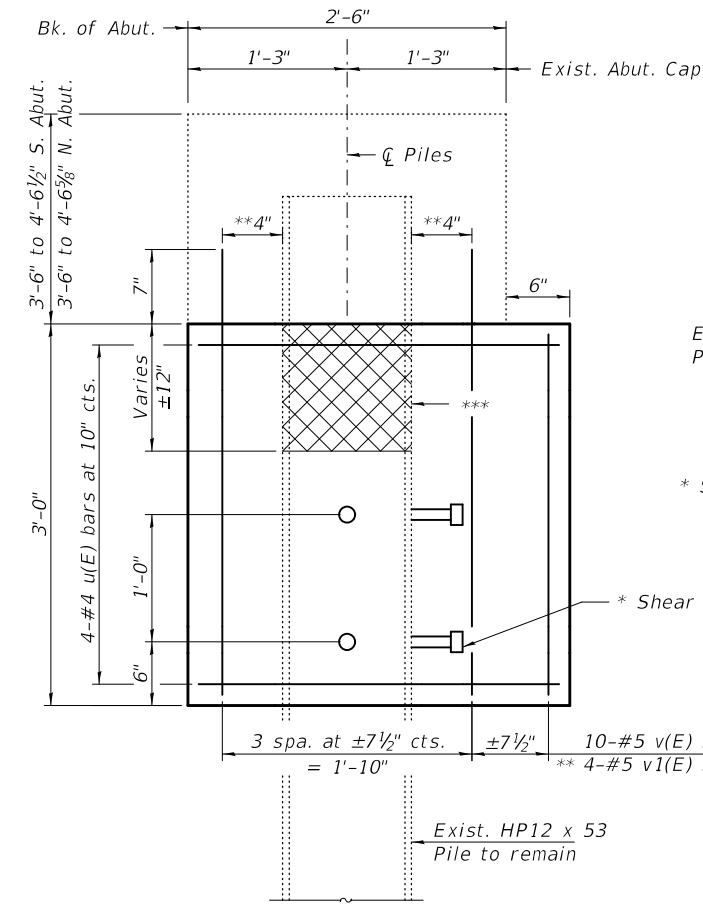
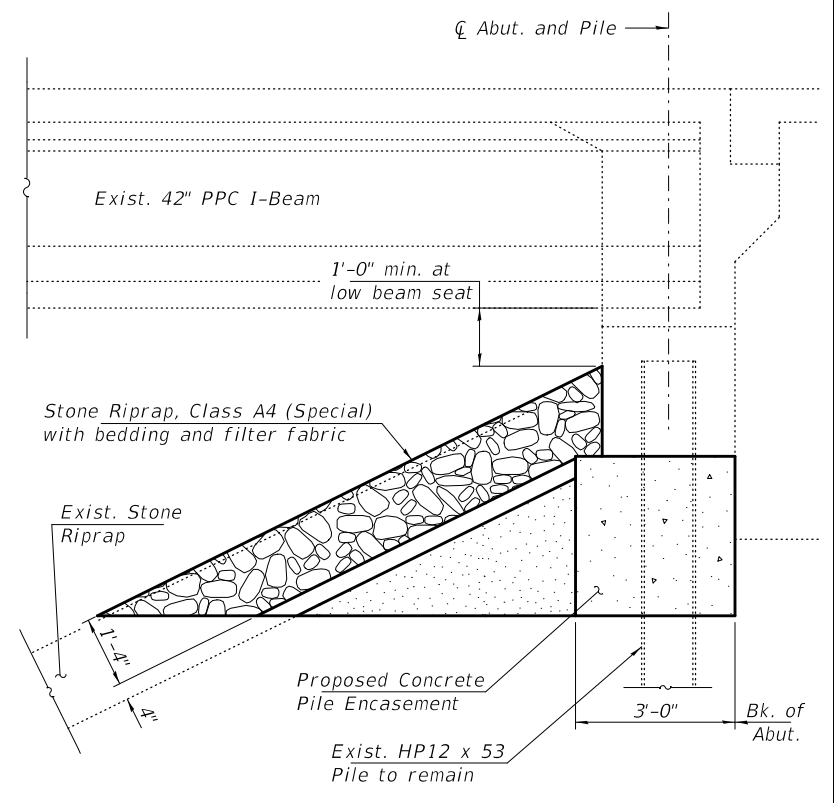
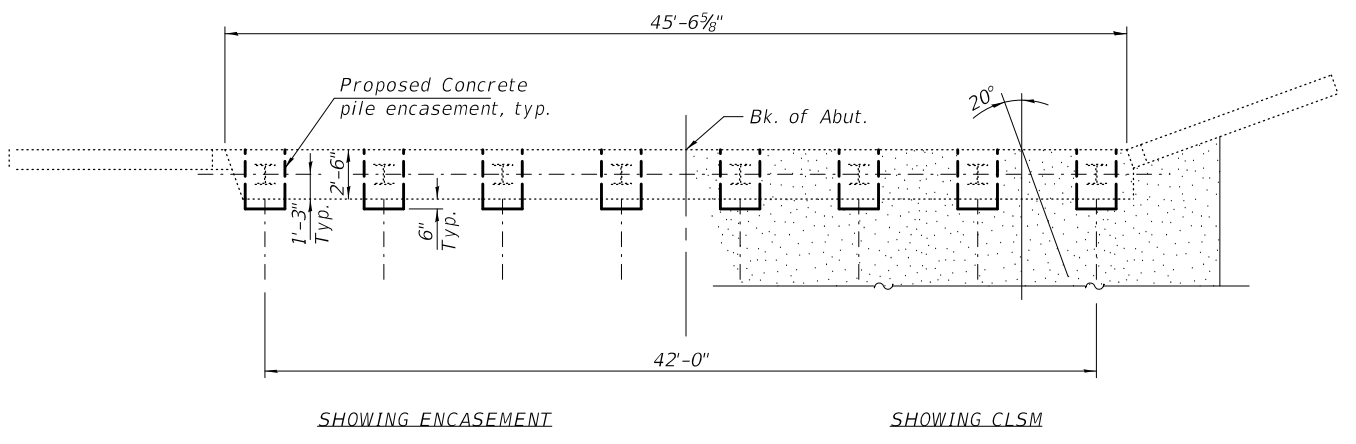
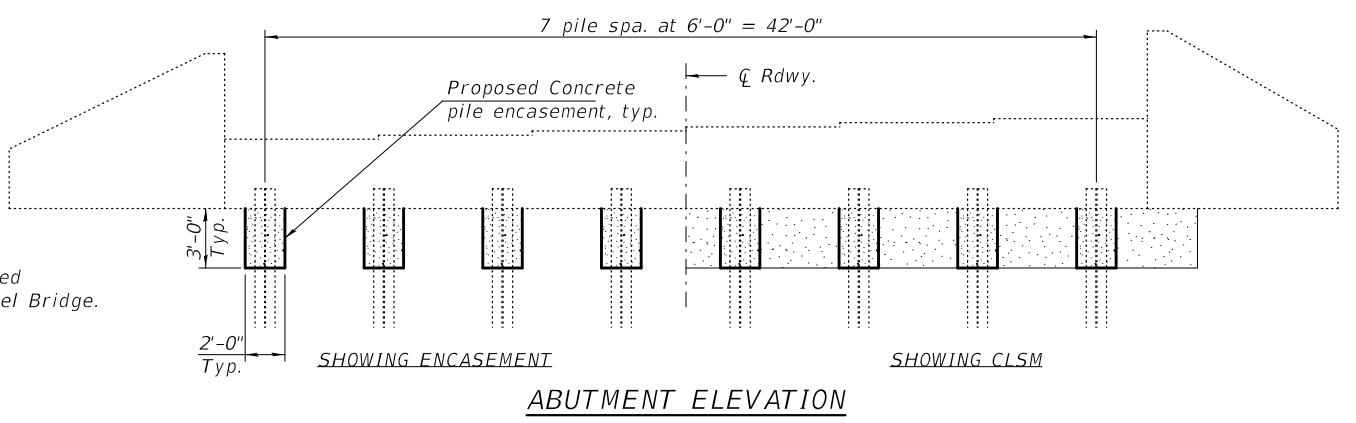
DATE - MARCH 15, 2022
 REVISED 1 - VHV 04/18/2022
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

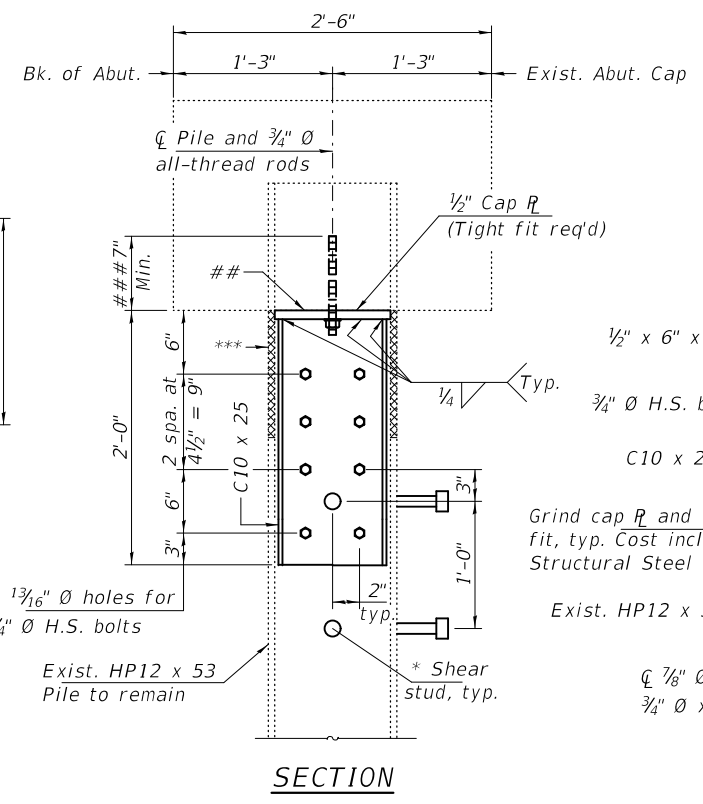
GENERAL PLAN AND ELEVATION
 FAI 039 OVER SIX MILE CREEK
 SN 057-0208 (SB) & 0209 (NB)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	MBPM 2022-J	MCLEAN	14	17
CONTRACT NO. 70F34			ILLINOIS FED. AID PROJECT	

- # The Contractor shall clean the exposed pile and bottom of each abutment (within encasement limits) before installing the concrete pile encasement. Concrete surfaces shall be either power washed, blast cleaned, or wire wheel cleaned. Steel surfaces shall be prepared according to SSPC-SP3. Cost included with Cleaning and Painting Steel Bridge.
- ## Grind bottom of abutment cap to provide a level bearing surface for the cap R. Epoxy grout any voids to ensure uniform bearing. Cost included with Structural Steel Repair.
- ### Drill and set all-thread rods into 7" min. drilled holes into the bottom of the exist. abutment cap according to Article 521.06 of the Standard Specifications. Cost included with Structural Steel Repair.
- * $\frac{3}{4}$ " \emptyset x 4" headed studs end welded to the pile as shown. Contractor may either use the TIG or MIG welding process per Manufacturer's Specifications. (8 req'd. per concrete pile encasement)
- ** Drill and epoxy grout #5 bars into 7" min. drilled holes into the bottom of the exist. abutment cap according to Article 584 of the Standard Specifications. Cost included with Reinforcement Bars.
- *** The Structural Engineer shall be contacted for further disposition if pile deterioration extends greater than 12 below the bottom of the abutment cap. See Special Provisions.



ABUTMENT PLAN



- LEGEND**
- Deteriorated Pile Section
 - CLSM = Controlled Low-Strength Material, Mix 2.

BAR u(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
u(E)	256	#4	6'-8"		
v(E)	320	#5	2'-8"		
v1(E)	128	#5	3'-5"		
Concrete Structures				Cu. Yd.	22
Structural Steel Repair				Pound	2080
Stud Shear Connectors				Each	256
Reinforcement Bars, Epoxy Coated				Pound	2490

SECTION

PILE ENCASEMENT DETAILS

SECTION

PILE REPAIR DETAIL

PLAN
(Shear studs not shown for clarity)

057-0209, N. Abutment, Pile 7 and 8
057-0208, N. Abutment, Pile 8

DESIGNED - CCC	EXAMINED - <i>Timothy A. Smith</i>	DATE - MARCH 11, 2022	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PILE REPAIR DETAILS SN 057-0208 (SB) & 0209 (NB)	F.A.I. RTE. 39	SECTION MBPM 2022-J	COUNTY MCLEAN	TOTAL SHEETS 14	SHEET NO. 8	
CHECKED - SMR	PASSED - <i>Jayne F. Smith</i>	REVISED 1 - VHV 04/18/2022			CONTRACT NO. 70F34					
DRAWN - Venkat Ramana Reddy	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -			SHEET NO. 2 OF 2 SHEETS					
CHECKED - CCC SMR					ILLINOIS FED. AID PROJECT					

GENERAL NOTES

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High strength fasteners shall be ASTM A325 Type 3. Holes may be subpunched or subdrilled 16" dia. and reamed in the field to 16 dia. for dia. Bolts.

All-thread rods shall be ASTM F1554, Grade 55.

The Contractor shall field verify the required bolt length and length of threads necessary to install all bolts in accordance with the Standard Specification.

Reinforcement bars designated (E) shall be epoxy coated.

Layout of the slope protection system may be varied to suit specific site conditions in the field as directed by the Engineer.


Contractor must exercise extreme care during construction operation as not to damage any of the overhead PPC I beams. Any damage done to the beams as a result of the contractor's operations will need to be repaired to the satisfaction of the Engineer at the contractor's expense.

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- (D) - Backfill excavation with controlled low-strength material and add new riprap slope protection.

LEGEND

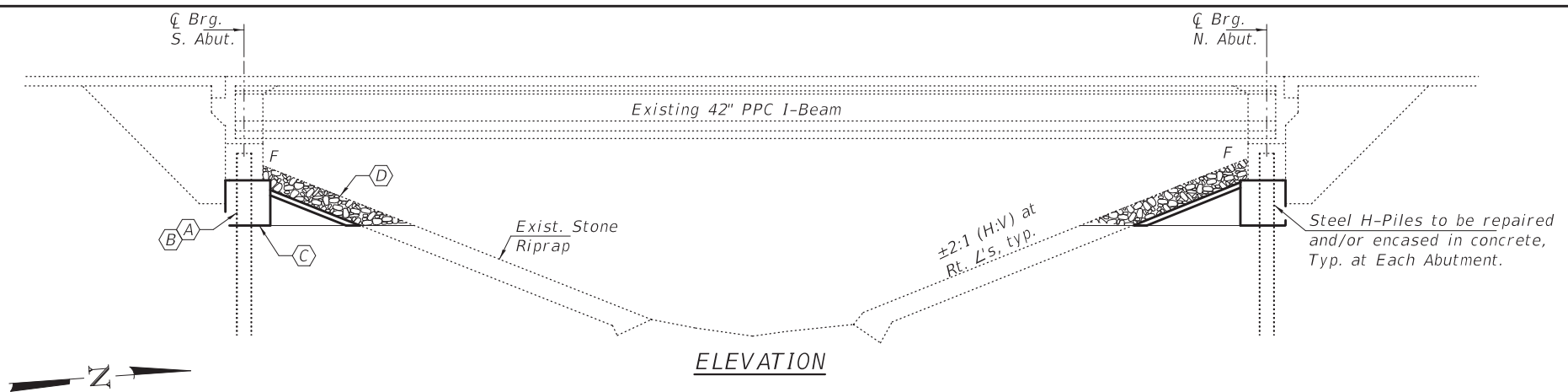
 Limits of Structure Excavation. Backfill with controlled low-strength material (CLSM), mix 2. Top with filter fabric, bedding, and stone riprap. See details on sheet 2 of 2.

TOTAL BILL OF MATERIAL

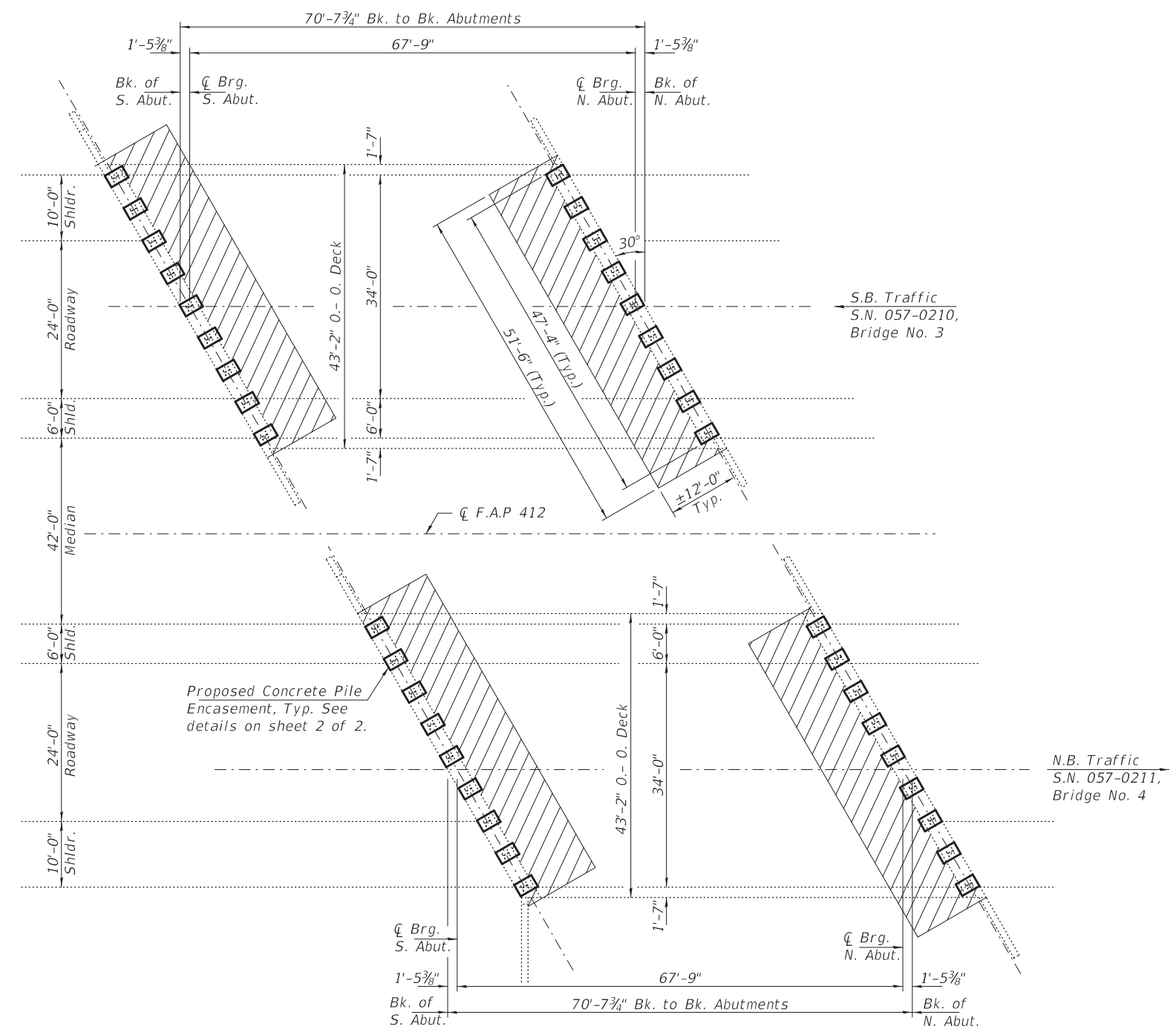
ITEM	UNIT	QUANTITY
Stone Riprap, Class A4 (Special)	Ton	170
Structure Excavation	Cu. Yd.	270
Concrete Structures	Cu. Yd.	25
Stud Shear Connectors	Each	288
Reinforcement Bars, Epoxy Coated	Pound	2800
Controlled Low-Strength Material	Cu. Yd.	100
* Structural Steel Repair	Pound	2080
Cleaning and Painting Steel Bridge No. 3	L. Sum	1
Cleaning and Painting Steel Bridge No. 4	L. Sum	1

The quantity and limits shown herein for Stone Riprap, Class A4 (Special) are estimated. Actual quantities shall be determined and adjusted in the field by the Engineer.

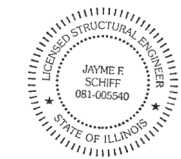
* Structural Steel Repair quantity is assumed for 4 piles location on each abutment. Exact pile number and locations to be determined in the field by the Engineer. Locations must also be included in the AS BUILT plans.



ELEVATION



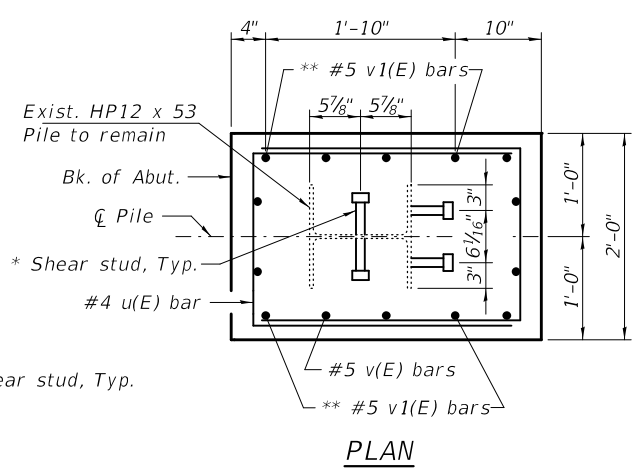
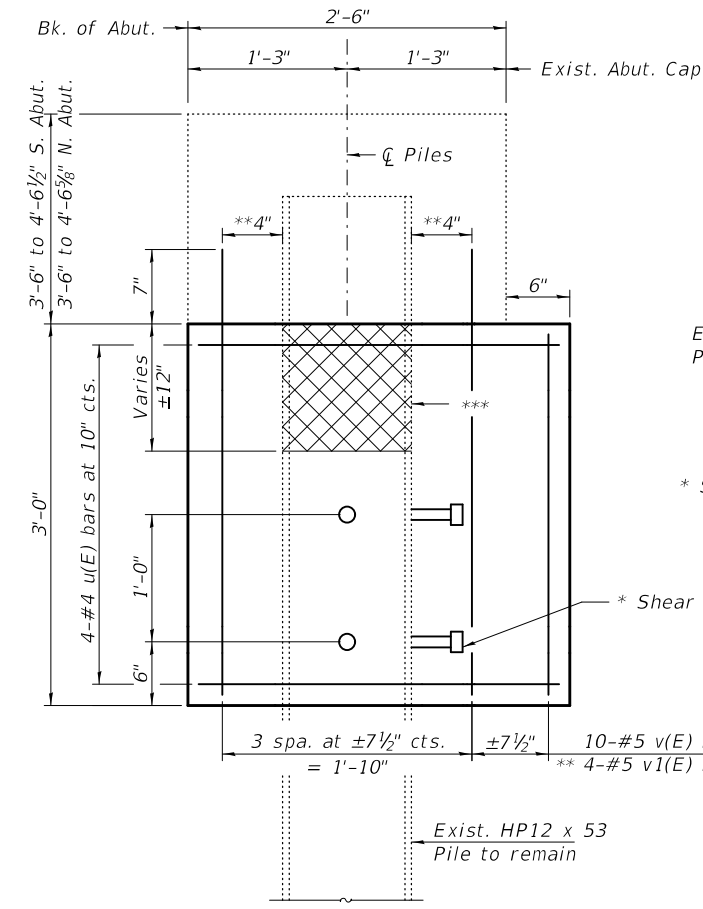
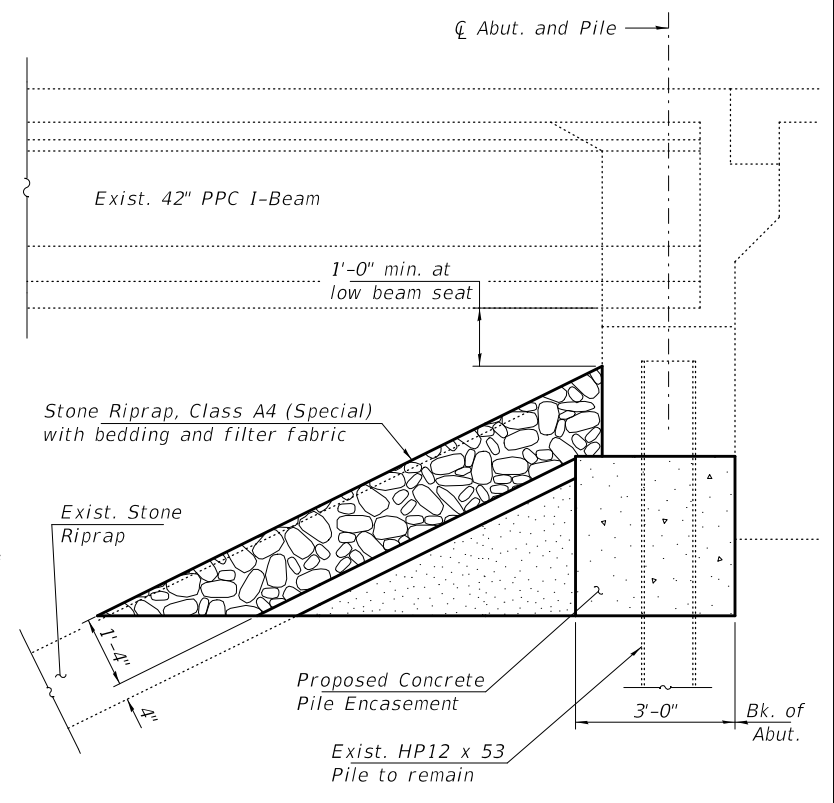
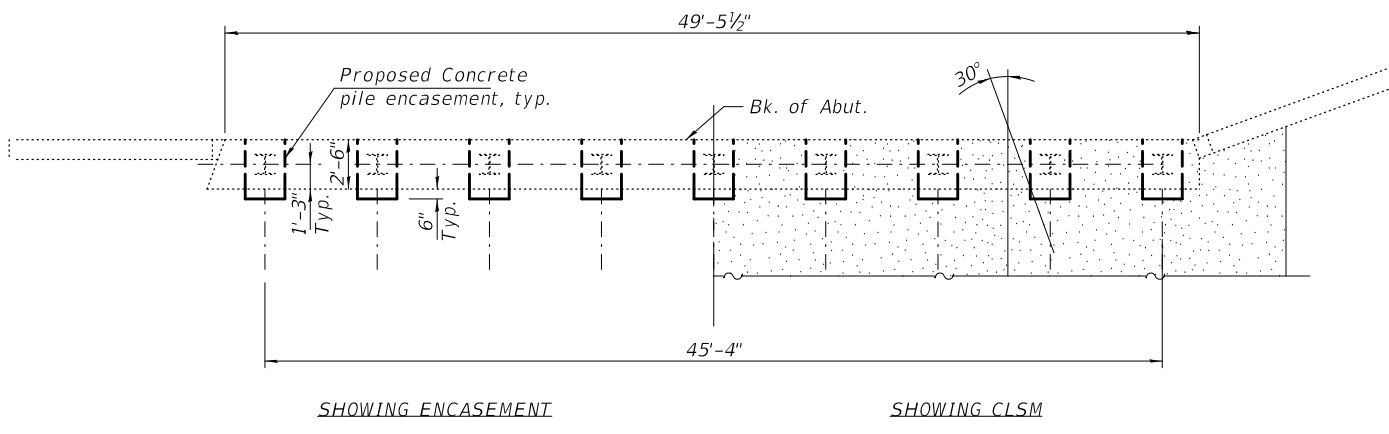
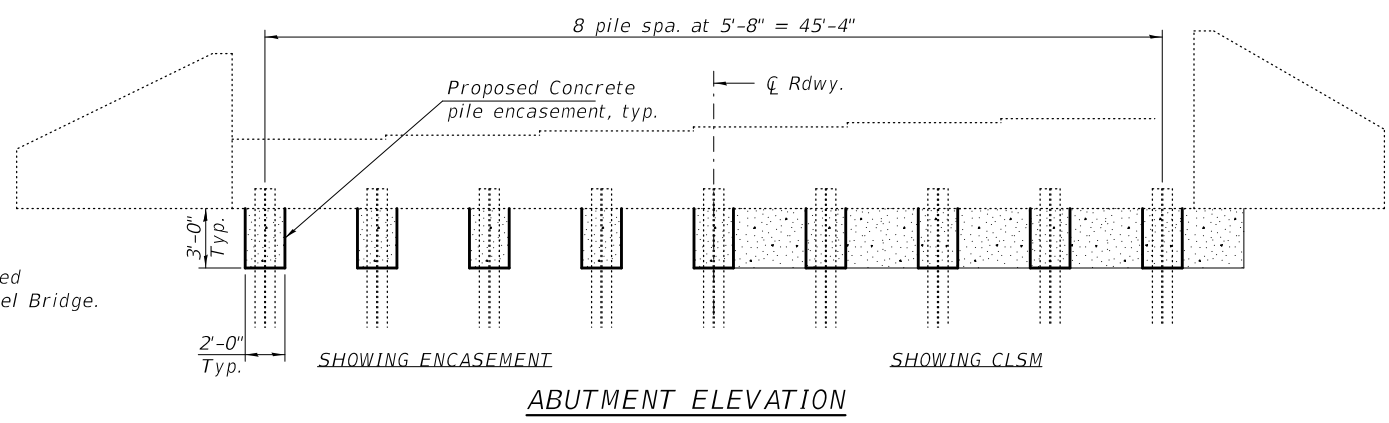
PLAN



EXPIRES 11-30-2022

DESIGNED - Chi-Cheung Chau	EXAMINED - <i>Ting A. Deak</i>	DATE - MARCH 15, 2022	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION FAI 039 OVER TRIB SIX MILE CREEK SN 057 - 0210 (SB) & 0211 (NB)	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
CHECKED - Stephen M. Ryan	PASSED - <i>Jayme F. Schiff</i>	REVISION 1 - VHV 0414/2022			39	MBPM 2022-1	MCLEAN	14	9	
DRAWN - Venkat Ramana Reddy	ENGINEER OF BRIDGES AND STRUCTURES	REVISION -			CONTRACT NO. 70F34					
CHECKED - CCC SMR	ENGINEER OF STRUCTURAL SERVICES				ILLINOIS FED. AID PROJECT					

- # The Contractor shall clean the exposed pile and bottom of each abutment (within encasement limits) before installing the concrete pile encasement. Concrete surfaces shall be either power washed, blast cleaned, or wire wheel cleaned. Steel surfaces shall be prepared according to SSPC-SP3. Cost included with Cleaning and Painting Steel Bridge.
- ## Grind bottom of abutment cap to provide a level bearing surface for the cap R's. Epoxy grout any voids to ensure uniform bearing. Cost included with Structural Steel Repair.
- ### Drill and set all-thread rods into 7" min. drilled holes into the bottom of the exist. abutment cap according to Article 521.06 of the Standard Specifications. Cost included with Structural Steel Repair.
- * 3/4" Ø x 4" headed studs end welded to the pile as shown. Contractor may either use the TIG or MIG welding process per Manufacturer's Specifications. (8 reqd. per concrete pile encasement)
- ** Drill and epoxy grout #5 bars into 7" min. drilled holes into the bottom of the exist. abutment cap according to Article 584 of the Standard Specifications. Cost included with Reinforcement Bars.
- *** The Structural Engineer shall be contacted for further disposition if pile deterioration extends greater than 12 below the bottom of the abutment cap. See Special Provisions.



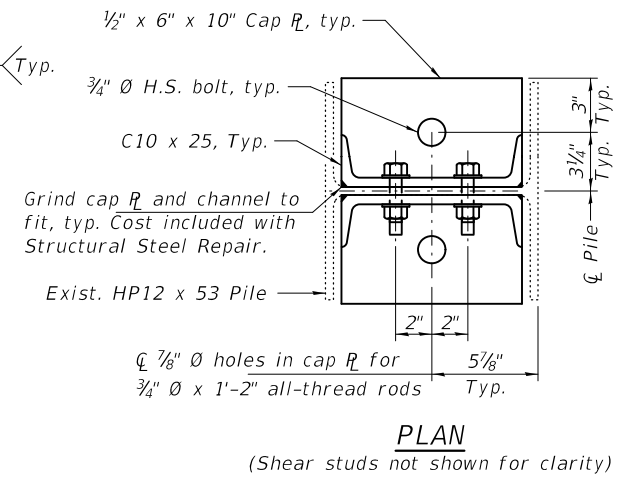
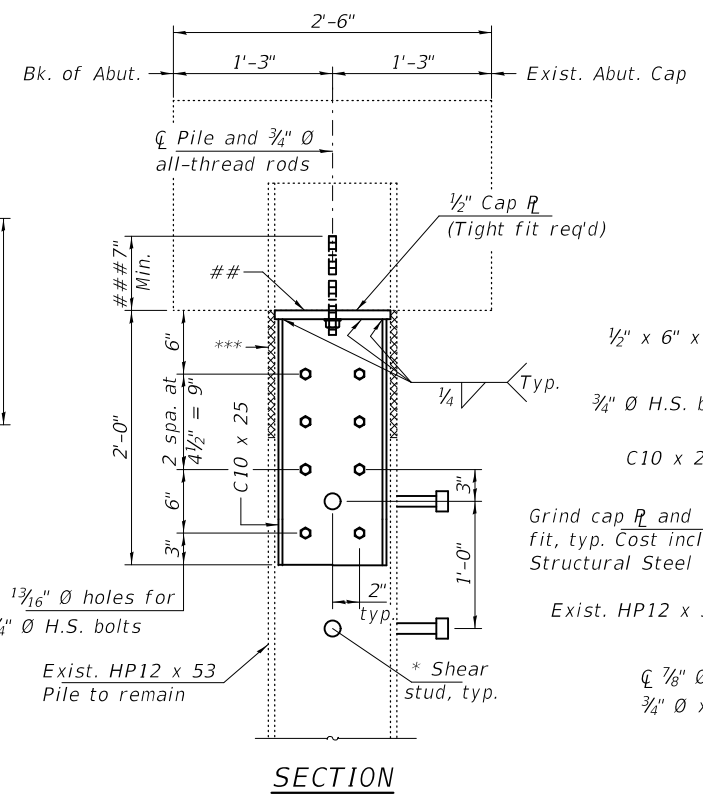
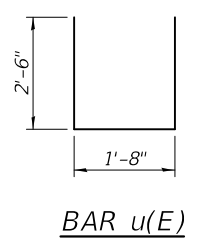
ABUTMENT PLAN

SECTION

PILE ENCASEMENT DETAILS

LEGEND

- Deteriorated Pile Section
- CLSM = Controlled Low-Strength Material, Mix 2.



PILE REPAIR DETAIL

PLAN
(Shear studs not shown for clarity)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
u(E)	288	#4	6'-8"	
v(E)	360	#5	2'-8"	
v1(E)	144	#5	3'-5"	
Concrete Structures				Cu. Yd. 25
Structural Steel Repair				Pound 2080
Stud Shear Connectors				Each 288
Reinforcement Bars, Epoxy Coated				Pound 2800

057-0209, N. Abutment, Pile 7 and 8
057-0208, N. Abutment, Pile 8

DESIGNED - CCC	EXAMINED -	DATE - MARCH 11, 2022
CHECKED - SMR	PASSED -	REVISION 1 - VHV 04/18/2022
DRAWN - Venkat Ramana Reddy		REVISION -
CHECKED - CCC SMR		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PILE REPAIR DETAILS
SN 057-0210 (SB) & 0211 (NB)**

SHEET NO. 2 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	MBPM 2022-1	MCLEAN	14	10
CONTRACT NO. 70F34				
ILLINOIS FED. AID PROJECT				